

1.0 SPECIAL PROVISIONS

Description:

Install two (2) new Interstate signs (ALL WATERCRAFT/CROSSING THE/CONTINENTAL DIVIDE/MUST BE INSPECTED/BEFORE LAUNCHING) with wind beam, structural steel supports and frangible breakaway devices.

Install three (3) new SEC signs (ALL WATERCRAFT/CROSSING THE/CONTINENTAL DIVIDE/MUST BE INSPECTED/BEFORE LAUNCHING) with wind beam, structural steel supports and frangible breakaway devices.

Install four (4) new 5' x 2 ½' County signs (RAMP OPEN TO/CERTIFIED BOATERS/ONLY) with pressure treated wooden poles and the necessary break away installation requirements.

See table under contract information for locations. All highway signs have been staked and all County signs have been marked for location by red surveyors tape. Each County sign will require some adjustments in the field to produce the best results. The contractor is responsible for installing all signs to the listed specifications herein. If an error is found in the staking of the signs, or a need to make field adjustments to correct any deficiencies herein, the contractor shall correct at no additional cost to the State.

Sign Faces:

The use of 12'-0" x 7'-0" sheet aluminum increment Type IV sign sheeting for the Interstate signs, 8'-0" x 5'-0" sheet aluminum increment Type IV for the SEC signs, and 5'-0" x 2 ½' sheet aluminum increment Type IV sign sheeting for the County Road signs. These will be provided by the State.

Wind Beam Requirements:

Extruded "T"-Section back brace (wind beam), attached to sign backing using 3M VHB 4941 HSE tape and rivets, installed in accordance with section 1.2 Construction Requirements. The two Interstate signs will require 4 back braces (wind beams) per sign, the 3 Secondary highway signs will require 3 back braces (wind beams) per sign, and the 4 County signs shall have 2- 2" x 4" x 5 ½' pressure treated, wooden back braces. These will not be provided by the state.

Supports:

Use W8x18 structural steel supports with frangible sign post breakaway (W8x18) devices for the (2) two Interstate signs.

Use S5x10 structural steel supports with frangible sign post breakaway (S5x10) devices for the (3) Secondary highway signs.

Use (2) 4" pressure treated wooden poles for each of the (4) four County Road signs around Canyon Ferry Reservoir.

Post Lengths:

- 1) I-15 North of Butte, 12' x 7' sign face at reference post 132.8000
 - a. X-post = 16' x 6" Y-post = 18' 2"
- 2) I-90 East of Butte, 12' x 7' sign face at reference post 232.5000
 - a. X-post = 14' 6" Y-post = 14' 7"
- 3) US-12 MacDonald Pass, 8' x 5' sign face at reference post 27.4000
 - a. X-post = 12' 6" Y-post = 12' 4"
- 4) MT-200 Rogers Pass, 8' x 5' sign face at reference post 89.8300
 - a. X-post = 13' 0" Y-post = 13' 2"
- 5) US-2 Marias Pass, 8' x 5' sign face at reference post 197.6000
 - a. X-post = 15' 5" Y-post = 16' 1"
- 6) All County Signs shall consist of 2- 16' long x 4" diameter pressure treated poles. These will need to be trimmed to meet the field conditions presented at each site. Therefore, a total of 8 pressure treated poles at 16' long x 4" diameter will be needed for bidding purposes.

All supports shall meet with the MUTCD, Montana Department of Transportation Signing/Detailed Drawings specifications and those included herein.

The weight of W8 x 18 structural steel posts (4 posts total), for use on the 2 Interstate Signs is approximately 1,147.5 lbs. total.

The weight of the S5 x 10 structural steel posts (6 posts total), for use on the Secondary Highway Signs is approximately 825 lbs. total.

Therefore, the estimated total weight for the above structural steel supports is 1,972.5 lbs. for bidding purposes.

This weight calculation is for the sign posts only. The breakaway devices needed for each sign are separate from this calculation and are a lump sum bid item.

1.1. MATERIALS

- 1.1.1. State Furnished sign faces will be used by the contractor. These faces to be picked up by the contractor at 930 Custer Avenue, Helena, MT 59601.
- 1.1.2. Extruded "T"-Section back braces or wooden back braces for the County signs (wind beam)- **WILL NOT BE SUPPLIED BY THE STATE.**
- 1.1.3. Frangible sign posts breakaway S5 X 10 (S130 X 15) and W8 X 18 (W200 X 27) for the corresponding Interstate Signs and holes shall be drilled at the base of the wooden poles for the County signs as per the latest version of the MUTCD/MDT Standard/Detailed drawings.
- 1.1.4. W8x18 structural steel posts for the two Interstate signs, S5x10 structural steel posts for the three Secondary Highway, and 4" diameter pressure treated wooden poles for the four County Signs.
- 1.1.5. Required hardware, concrete, and any other miscellaneous items required to meet the MUTCD/MDT Standard Drawings/Detailed Drawings/Specifications/Plans is the responsibility of the contractor to provide. All work and materials shall meet the latest guidelines of the MUTCD/Montana Department of Transportation Signing Details and Specs (MDT Standard Drawing/Detailed Drawings).

1.2. CONSTRUCTION REQUIREMENTS

- 1.2.1. Assure all Interstate signs are installed in accordance with MDT Signing/Detailed Drawings. Assure Secondary highway signs are installed in accordance with MDT Signing/Detailed Drawings. Assure all signs and associated materials are installed as per the MDT detailed/standard details which can be found at:
http://www.mdt.mt.gov/other/webdata/external/const/detailed_drawings/2017_March/619_SIGNS_DELINS.PDF.

Use 3M VHB 4941 HSE high bond industrial tape, or approved equal, to mount sign backing to each wind beam back brace, in addition to rivets along the entire length of each wind beam. Prepare surface and apply tape per manufacturer's protocols. Use (2) 2" x 4" pressure treated back braces for each of the 4 County signs. All work/materials shall meet with the MDT signing specifications, MUTCD, and MDT Detailed Drawings.

- 1.2.2. Prior to any excavation, contact the One Call Locate Center (1-800-424-555; except in Flathead and Lincoln Counties, 1-800-551-8344) or other notification system for the marking and location of all lines and services. Any damage to utilities are the responsibility of the Contractor to correct at no cost to the owner.

1.3. MEASUREMENT

- 1.3.1. Steel poles are measured by pounds LBS.
1.3.2. Extruded "T"-Section back brace (wind beam) is measured by each.
1.3.3. Breakaway hardware is measured by each.

1.4. BASIS OF PAYMENT

Payment at the contract unit price is full compensation for all necessary resources to complete the item of work under the contract.

1.5. SUBMITTALS

Contractor shall submit shop drawings, product data and samples as defined herein, for all sign and post structural items and traffic control plans five (5) days prior to start of project.

CONTRACT INFORMATION

Locations: All signs will be installed at the approximate locations outlined in the tables below.

FWP HIGHWAY Signing Project - Aquatic Invasive Species (AIS)						
Sign Route	MDT Corridor	Reference Post	Road Bed Direction	MDT Maintenance Division	Sign Width	Location
I-15	C000015	132.8000	SB	Butte	12'-0"	North of Butte
I-90	C000090	232.5000	WB	Butte	12'-0"	East of Butte
US-12	C000008	27.4000	WB	Butte	8'-0"	MacDonald Pass
MT-200	C000024	89.8300	WB	Great Falls	8'-0"	Rogers Pass
US-2	C000001	197.600	WB	Havre	8'-0"	Marias Pass

COUNTY ROAD SIGNS

Sign Location	Side of the road for new sign	Direction of traffic sign serves	General location for new sign	Staked location for new sign	Sign Width	County of sign location
Beaver Creek Road near Winston (West side of the Reservoir)	SE	NW	Near the turn off/entrance to the NE on Beaver Creek Road from Hwy 287	A red surveyors flagging tape is tied to the nearby barbed wire fence a short distance from the Hwy 287 turn off	5'	Broadwater
Filson Lane Road (West side of the Reservoir)	SE	East	Near the turn off/entrance to the East on Filson Lane Road from Hwy 287	A red surveyors flagging tape is tied to the nearby barbed wire fence a short distance from the Hwy 287 turn off	5'	Broadwater
Lower Duck Creek Road (East side of the Reservoir)	NW	West	Near the turn off/entrance to the West on Lower Duck Creek Road	A red surveyors flagging tape is tied to the nearby barbed wire fence a short distance from the Hwy 284 turn off	5'	Broadwater
Lower Confederate Road (East side of the Reservoir)	SE	South	Near the turn off/entrance to the South on Lower Confederate Road	A red surveyors flagging tape is tied to the nearby barbed wire fence a short distance from the Hwy 284 turn off	5'	Broadwater

ADDITIONAL SPECIFICATIONS FOR WORK:

Sign Faces will be provided by the state to be picked up by the successful bidder at 930 Custer Avenue, Helena MT, 59601.

Provide all labor, materials, equipment, traffic control and incidentals necessary to install signage, posts and hardware per the specifications, locations and detail drawings listed herein. Contractor will be required to work with the MDT area Maintenance Chief for traffic control plan and location of sign placement. Contact information is as follows:

Missoula: Steve Felix (406)523-5803

Butte: Kam Wrigg (406)494-9627

Bozeman: Kyle DeMars (406)556-4704

Great Falls: Harry Barnett (406)454-5889

Havre: Matt Ladenburg (406)262-5504

Billings: Tom Tilzey (406)657-0217

Miles City: Tom Roberts (406)223-3622

Wolf Point: Carson Buffington (406)228-2534

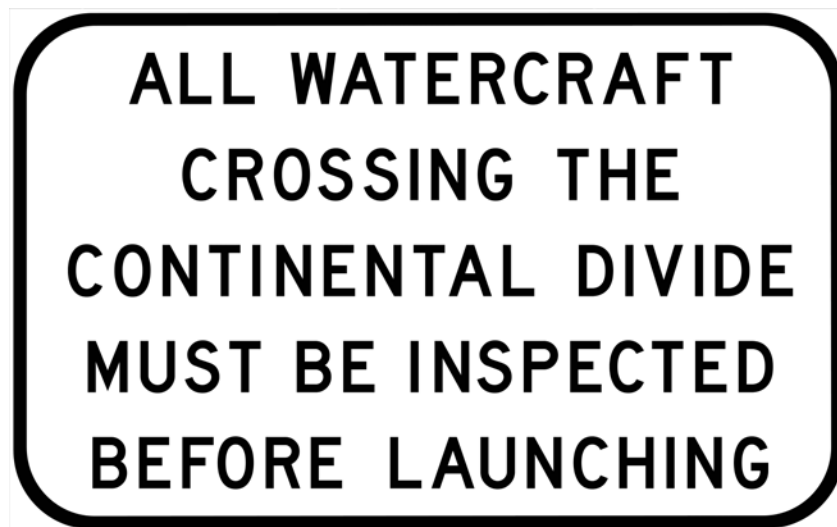
All sign and related materials installation shall be in accordance with the Department's book entitled "Standard Specifications for Road and Bridge Construction", 2014 edition or as amended by current supplemental specifications found at: http://www.mdt.mt.gov/business/contracting/standard_specs.shtml

AIS Continental Divide Sign Faces



12' - 0" x 7' - 0" (144" X 84")

For Continental Divide Interstate Highways



8' - 0" x 5' - 0" (96" X 60")

For Continental Divide Secondary Roads

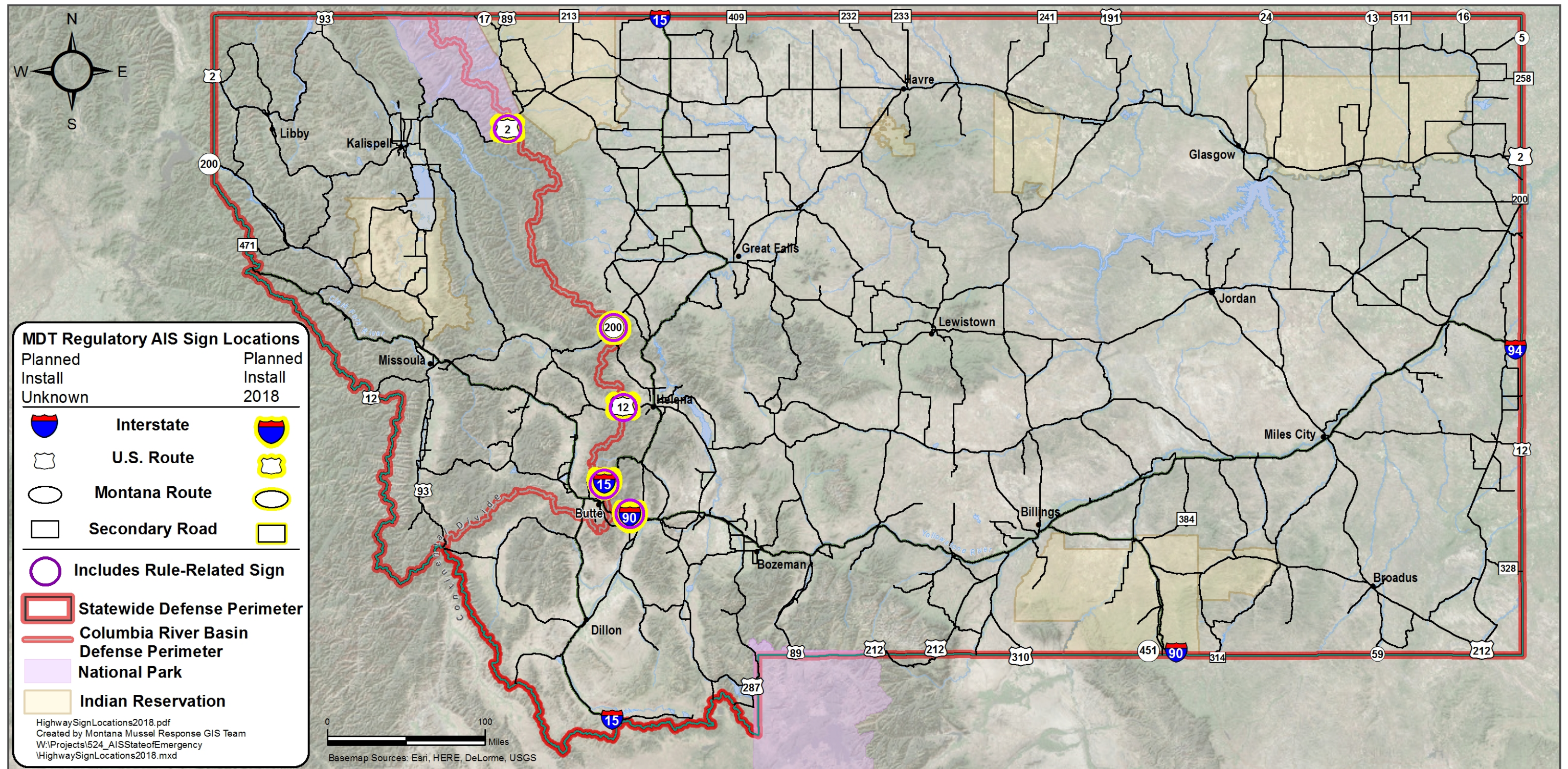


Quantity 4 - Local Boater Highway signs for Canyon Ferry Reservoir.
5 ft x 2-1/2 ft - 0.125" ALUMINUM WITH REFLECTIVE SHEETING, UV protected.
Sticker measures 9" square, and will be applied by sign face manufacturer.



AIS Perimeter and Continental Divide Sign Locations

Highlighted Locations to be Installed 2018





COUNTY ROAD SIGN LOCATIONS

2.0 ADDITIVE ALTERNATE #1:

Description:

The following is independent from the main project specified above. The following information pertains to additive alternate #1 only;

The installation of two signs for the Milltown State Park on Interstate 90 near Missoula, MT (See enclosed map for specific locations). These two signs cannot be installed before May 1st, 2018. The bases/supports may be installed before then, but the actual sign faces will need to be completed after May 1st, but before June 1st, 2018. The Park does not open until May 1st, so we do not want to direct traffic to a closed park.

Install two (2) new Interstate Signs (Milltown/State Park/NEXT EXIT) including 6 Recreation Symbols and Addendum with wind beam, structural steel supports and frangible breakaway devices.

See table under contract information for locations. All highway signs have been staked. The contractor is responsible for installing all signs to the listed specifications herein. If an error is found in the staking of the signs, or a need to make field adjustments to correct any deficiencies herein, the contractor shall correct at no additional cost to the State.

Sign Faces:

The use of 12'-0" x 6'-0" sheet aluminum increment Type IV sign sheeting for the Interstate signs, Recreation Symbols, and Addendum (see attached sign layout). These will be provided by the State.

Wind Beam Requirements:

Extruded "T"-Section back brace (wind beam), attached to sign backing using 3M VHB 4941 HSE tape and rivets, installed in accordance with section 2.2 Construction Requirements. The two Interstate signs will require 4 back braces (wind beams) per sign. The two Recreation Symbols signs will require 2 back braces (wind beams) per sign. The two Addendum signs will require 1 back brace (wind beam) per sign. These will not be provided by the state.

Supports:

Use W8x18 structural steel supports with frangible sign post breakaway (W8x18) devices for the (2) two Interstate signs.

All requirements for this project must meet the MUTCD and the latest version of the standard/detailed drawings from the Montana Department of Transportation.

Post Lengths:

- 1) I-90 Eastbound, 12' x 6' sign face, (6) 2' x 2' recreation symbols, and 12' x 1' addendum at reference post 109.000.
 - a. X-post = 18' 5" Y-post = 17' 1"
- 2) I-90 Westbound, 12' x 6' sign face, (6) 2' x 2' recreation symbols, and 12' x 1' addendum at reference post 110.500.
 - a. X-post = 15' 6" Y-post = 11' 0"

All supports shall meet with the MUTCD, Montana Department of Transportation Signing/Detailed Drawings specifications and those included herein.

The weight of W8 x 18 structural steel posts (4 posts total), for use on the 2 Interstate Signs is approximately 1,116lbs. total.

Therefore, the estimated total weight for additive alternate #1 regarding structural steel support posts is 1,116lbs. for bidding purposes.

This weight calculation is for the sign posts only. The breakaway devices needed for each sign are separate from this calculation and are a lump sum bid item.

2.1. MATERIALS

- 2.1.1. State Furnished sign faces will be used by the contractor. These faces are to be picked up by the contractor at 930 Custer Avenue, Helena, MT 59601.
- 2.1.2. Extruded "T"-Section back braces (wind beam)-WILL NOT BE SUPPLIED BY THE STATE.
- 2.1.3. Frangible sign posts breakaway W8 X 18 (W200 X 27) for the Interstate Signs as per the latest version of the MUTCD/MDT Standard/Detailed drawings.
- 2.1.4. W8x18 structural steel posts for the two Interstate signs.
- 2.1.5. Required hardware, concrete, and any other miscellaneous items required to meet the MUTCD/MDT Standard Drawings/Detailed Drawings/Specifications/Plans is the responsibility of the contractor to provide. All work and materials shall meet the latest guidelines of the MUTCD/Montana Department of Transportation Signing Details and Specs (MDT Standard Drawing/Detailed Drawings).

2.2. CONSTRUCTION REQUIREMENTS

Construction Requirements: Assure all signs are installed as per the MDT standard details which can be found at:

http://www.mdt.mt.gov/other/webdata/external/const/detailed_drawings/2017_March/619_SIGNS_DELINS.PDF .

Use 3M VHB 4941 HSE high bond industrial tape, or approved equal, to mount each sign backing to the required (wind beams) back braces, in addition to rivets along the entire length of each wind beam. Prepare surface and apply tape per manufacturer's protocols.

- 2.2.1. Prior to all excavation, contact the One Call Locate Center (1-800-424-555; except in Flathead and Lincoln Counties, 1-800-551-8344) or other notification system for the marking and location of all lines and services. Any damage to utilities are the responsibility of the Contractor to correct at no cost to the Owner.

2.3. MEASUREMENT

- 2.3.1. Steel poles are measured by pounds LBS.
- 2.3.2. Extruded "T"-Section back brace (wind beam) is measured by each.
- 2.3.3. Breakaway hardware is measured by each.

2.4. BASIS OF PAYMENT

Payment at the contract unit price is full compensation for all necessary resources to complete the item of work under the contract.

2.5. SUBMITTALS

Contractor shall submit shop drawings, product data and samples as defined herein, for all sign and post structural items and traffic control plans five (5) days prior to start of project.

CONTRACT INFORMATION

Locations: All signs will be installed at the approximate locations outlined in the table below.

<u>ADDITIVE ALTERNATE #1</u>						
<u>MILLTOWN STATE PARK INTERSTATE SIGNING</u>						
Sign Route	MDT Corridor	Reference Post	Road Bed Direction	MDT Maintenance Division	Sign Width	Location
I-90	N/A	109.0000	EB	Missoula	12'-0"	See attached map
I-90	N/A	110.5000	WB	Missoula	12'-0"	See attached map

ADDITIONAL SPECIFICATIONS FOR WORK:

Sign Faces will be provided by the state to be picked up by the successful bidder at 930 Custer Avenue, Helena MT, 59601.

Provide all labor, materials, equipment, traffic control and incidentals necessary to install signage, posts and hardware per the specifications, locations and detail drawings listed herein. Contractor will be required to work with the MDT area Maintenance Chief for traffic control plan and location of sign placement. Contact information is as follows:

Missoula: Steve Felix (406)523-5803

All sign and related materials installation shall be in accordance with the Department's book entitled "Standard Specifications for Road and Bridge Construction", 2014 edition or as amended by current supplemental specifications found at: http://www.mdt.mt.gov/business/contracting/standard_specs.shtml



**Milltown State Park
Interstate Sign**

Near Bonner/Milltown, MT

Main Sign

12'-0" x 6'-0" (144" X 72")

Recreation Symbols (6)

Each 24" x 24"

Addendum

12'-0" x 1'-0" (144" x 12")

Milltown State Park Interstate Sign Locations

